

REMARKS

The Final Office Action dated January 14, 2004, has been received and reviewed.

Claims 1-20 are currently pending in the above-referenced application. Claim 10 has been withdrawn from consideration as being directed to a non-elected species of invention. Each of claims 1-9 and 11-20 has been considered and currently stands rejected.

Reconsideration of the above-referenced application is respectfully requested.

Objection to the Abstract

The Abstract has been objected to for failing to focus on the method aspects of the inventive subject matter described in the above-referenced application.

The Abstract has been amended to more accurately reflect the subject matter recited in the claims of the above-referenced application.

Withdrawal of the objection to the Abstract is respectfully requested.

35 U.S.C. § 101 Double Patenting Rejection

Claims 1-20 are provisionally rejected under 35 U.S.C. § 101 for reciting the same subject matter as that to which claims 1-20 of copending Application Serial No. 10/035,738 (hereinafter “the ‘738 Application”) are drawn.

35 U.S.C. § 101 provides in relevant part: “Whoever invents or discovers any new and useful process . . . may obtain *a* patent therefor . . . ” (emphasis added). In explaining the basis on which a double patenting rejection under 35 U.S.C. § 101 should be premised, M.P.E.P. § 804(II)(A) provides:

In determining whether a statutory basis for a double patenting rejection exists, the question to be asked is: Is the same invention being claimed twice?

. . . Is there an embodiment of the invention that falls within the scope of one claim, but not the other? If there is such an embodiment, then identical subject matter is not defined by both claims and statutory double patenting would not exist.

Independent claim 1 of the above-referenced application is drawn to a method for establishing an electrical contact with at least one semiconductor device. The method of independent claim 1 includes “establishing an electrical contact between a first member of an electrical connector and a contact that is in electrical communication with the at least one semiconductor device,” as well as “drawing the first member toward the contact.”

Independent claim 1 of the ‘738 Application includes additional limitations and, thus, may not be infringed by some embodiments of a process that would infringe independent claim 1 of the above-referenced application. In particular, independent claim 1 of the ‘738 Application is directed to a method for establishing *temporary* electrical contact, a limitation which is not present in independent claim 1 of the above-referenced application.

Also, independent claim 1 of the ‘738 Application recites that the act of “magnetically drawing” includes drawing one of a contact and an electrical connector toward the other, whereas independent claim 1 of the above-referenced application merely recites that the first member is drawn toward the contact.

Independent claim 1 of the ‘738 Application also includes the added limitation of “permitting an electrical current to flow from at least one of the electrical connector and the contact to the other of the contact and the electrical connector as the temporary electrical contact is maintained.” This limitation is not present in independent claim 1 of the above-referenced application.

Further, none of these additional limitations of independent claim 1 of the ‘738 Application is present in either claim 5 or claim 7 of the above-referenced application, these being claims which recite “magnetically drawing.”

It is, therefore, respectfully submitted that none of claims 1, 5, or 7 of the above-referenced application recites subject matter which is identical to that of independent claim 1 of the ‘738 Application. Accordingly, under 35 U.S.C. § 101, claims 1, 5, and 7 of the above-referenced application are allowable over independent claim 1 of the ‘738 Application.

Each of claims 2-4 and 6 is allowable, among other reasons, for depending either directly or indirectly from claim 1, which is allowable.

Independent claim 8 of the above-referenced application is directed to a method for stress testing a plurality of semiconductor devices carried upon a common substrate. The method of independent claim 8 includes “establishing electrical contact between a first member of an electrical connector and at least one contact of [a common] ground contact and [a common] power contact” of the common substrate. Additionally, the method of independent claim 8 includes “drawing the first member toward the at least one contact.”

Independent claim 8 of the ‘738 Application includes additional limitations and, thus, may not be infringed by some embodiments of a process that would infringe independent claim 1 of the above-referenced application. In particular, independent claim 8 of the ‘738 Application is directed to a method for establishing *temporary* electrical contact, a limitation which is not present in independent claim 8 of the above-referenced application.

Also, independent claim 8 of the ‘738 Application recites that the act of “magnetically drawing” includes drawing one of a contact and an electrical connector toward the other, whereas independent claim 8 of the above-referenced application merely recites that the first member is drawn toward the contact.

Independent claim 8 of the ‘738 Application also includes the added limitation of “permitting an electrical current to flow from at least one of the electrical connector and the contact to the other of the contact and the electrical connector as the temporary electrical contact is maintained.” This limitation is not present in independent claim 8 of the above-referenced application.

Further, none of these additional limitations of independent claim 8 of the ‘738 Application is present in either claim 13 or claim 14 of the above-referenced application, these being claims which recite “magnetically drawing.”

It is, therefore, respectfully submitted that none of claims 8, 13, or 14 of the above-referenced application recites subject matter which is identical to that of independent claim 8 of the ‘738 Application. Accordingly, under 35 U.S.C. § 101, claims 8, 13, and 14 of the above-referenced application are allowable over independent claim 8 of the ‘738 Application.

Claims 9-12 and 15-20 are each allowable, among other reasons, for depending either directly or indirectly from claim 8, which is allowable.

In view of the foregoing, it is respectfully requested that the 35 U.S.C. § 101 double patenting rejections of claims 1-20 be withdrawn.

Rejections Under 35 U.S.C. § 102(b)

Claims 1-7 stand rejected under 35 U.S.C. § 102(b) for reciting subject matter which is purportedly anticipated by that described in U.S. Patent 3,612,955 to Butherus et al. (hereinafter “Butherus”).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single reference which qualifies as prior art under 35 U.S.C. § 102. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Butherus describes a circuit board that includes magnetized traces and a packaged semiconductor device that includes leads that are either magnetized or formed from a material which is attracted to the source of a magnetic field. Col. 2, lines 59-75. The traces and leads are magnetized in such a way that, with rough alignment of the packaged semiconductor device over the circuit board, the magnetized leads will automatically align with their corresponding, complementarily magnetized traces. Col. 4, line 69, to col. 5, line 7.

Once the leads of the semiconductor device package are aligned with corresponding traces or terminals on the circuit board, the leads may be secured and electrically connected to their corresponding traces or terminals by known processes, such as by thermocompression bonding. Col. 2, lines 47-59.

Independent claim 1 is drawn to a method for establishing an electrical contact with at least one semiconductor device. Electrical contact is established in accordance with independent claim 1 by drawing the first member toward the contact.

While Butherus describes that leads of a packaged semiconductor device may be magnetically attracted to corresponding traces or terminals of a circuit board, Butherus lacks any express or inherent description that the attraction of the leads to the terminals (which is magnetic

in Butherus) is sufficient to electrically connect the leads to the traces or terminals. To the contrary, Butherus describes that additional securing of leads to traces or terminals, such as by thermocompression, is necessary. Col. 2, lines 47-59.

It is, therefore, respectfully submitted that Butherus does not and cannot anticipate each and every element of independent claim 1, as is required to maintain a rejection under 35 U.S.C. § 102(b). Accordingly, it is respectfully submitted that, under 35 U.S.C. § 102(b), independent claim 1 recites subject matter which is allowable over that described in Butherus.

Claims 2-7 are each allowable, among other reasons, for depending either directly or indirectly from claim 1, which is allowable.

Claim 4 is further allowable since each of the electrical connectors of Butherus, which electrical connectors are presumed to be the leads of the packaged semiconductor device, comprises only a single element. Thus, Butherus includes no express or inherent description of “positioning a second member of [an] electrical connector opposite [a] first member” of the electrical connector.

Claim 5 depends directly from claim 4 and is also allowable because Butherus neither expressly nor inherently describes that oppositely positioned first and second members of an electrical connector may be magnetically attracted to one another. Instead, the description of Butherus is limited to magnetically attracting a single-element lead directly to a trace or terminal.

Claim 6, which also depends directly from claim 4, is additionally allowable because Butherus does not expressly or inherently describe securing both first and second members of an electrical connector to a substrate by attracting at least the first member of the electrical connector to a contact carried by the substrate. Rather, Butherus merely describes attracting single-element leads to corresponding magnetic traces or terminals.

For these reasons, it is respectfully requested that the 35 U.S.C. § 102(b) rejections of claims 1-7 be withdrawn and that each of these claims be allowed.

Rejections Under 35 U.S.C. § 103(a)

Claims 8, 9, and 11-20 stand rejected under 35 U.S.C. § 103(a) for reciting subject matter which is assertedly unpatentable over the subject matter taught in Butherus, in view of the official notice that the Office has taken.

The standard for establishing and maintaining a rejection under 35 U.S.C. § 103(a) is set forth in M.P.E.P. § 706.02(j), which provides:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The teachings or suggestions of Butherus are summarized above.

The Office has taken official notice of two teachings. First, the Office has taken official notice that "it is well known in the art to provide ground and power to electronic components to energize them." Final Office Action dated January 14, 2004, page 3. Second, the Office has taken official notice that, "during burn-in testing[,] [sic] heat is provide[d] [sic] either cyclically or variously to purposely fail the [burned-in] component." *Id.*

It is respectfully submitted that a *prima facie* case of obviousness has not been established against any of claims 8, 9, or 11-20, as would be required to maintain the 35 U.S.C. § 103(a) rejections of these claims. Specifically, Butherus does not teach or suggest each and every claim limitation set forth in any of claims 8, 9, or 11-20, and the subject matter for which official notice has been taken does not remedy the deficiencies of Butherus.

Independent claim 8 recites a method for stress testing a plurality of semiconductor devices that are carried upon a common substrate and that are in communication with common ground and power contacts. The method of independent claim 8 includes establishing electrical contact between a first member of an electrical connector and at least one common contact, with

at least one of the first member and the at least one common contact being drawn toward the other.

It is respectfully submitted that Butherus lacks any teaching or suggestion that one of a first member of an electrical connector and a contact may be drawn to the other to establish an electrical connection therebetween. Rather, the teachings of Butherus are limited to generating a sufficient magnetic field to properly align leads of a packaged semiconductor device with corresponding traces or terminals of a circuit board. *See, e.g.*, Col. 4, line 69, to col. 5, line 7.

Moreover, Butherus does not teach or suggest that electrical contact may be established between a first member of an electrical connector and a contact, such as a power contact or a ground contact, which is *common to* a plurality of semiconductor devices. Nor has the Office cited any art which teaches or suggests that electrical contact may be established between a first member of an electrical connector and a contact which is common to a plurality of semiconductor devices during stress testing.

Further, the mere fact that electrical connections are made during stress testing does not inherently lead to the conclusion that magnetic attraction of the type taught in Butherus would be adequate for establishing electrical connections that will withstand stress testing conditions, nor would one of ordinary skill in the art have any reason to expect that the type of magnetic attraction taught in Butherus could be successfully used for such a purpose.

For these reasons, it is respectfully submitted that the Office has not established a *prima facie* case of obviousness against independent claim 8. Accordingly, it is respectfully submitted that, under 35 U.S.C. § 103(a), independent claim 8 is allowable over both the teachings of Butherus and the teachings for which the Office has taken official notice.

Each of claims 9 and 11-20 is allowable, among other reasons, for depending either directly or indirectly from claim 8, which is allowable.

Claim 11 is further allowable since each of the electrical connectors of Butherus, which electrical connectors are presumed to be the leads of the packaged semiconductor device, comprises only a single element. Thus, Butherus includes no teaching or suggestion of “positioning a second member of [an] electrical connector opposite [a] first member” of the electrical connector.

Claim 12 depends directly from claim 11 and is also allowable because Butherus neither teaches nor suggests that oppositely positioned first and second members of an electrical connector may be drawn to one another. Instead, the teachings or suggestions of Butherus are limited to attracting a single-element lead directly to a trace or terminal.

Claim 13, which depends directly from claim 12, is additionally allowable because Butherus includes no teaching or suggest that first and second members of an electrical connector may be magnetically attracted to one another.

Claim 15 is further allowable since Butherus does not teach or suggest *securing* a first member of an electrical connector to a contact. Rather, Butherus merely teaches attracting single-element leads to corresponding magnetic traces or terminals. Securing of the leads to the traces or terminals is then effected by conventional bonding techniques, such as thermocompression. Col. 2, lines 47-59.

In view of the foregoing, it is respectfully requested that the 35 U.S.C. § 103(a) rejections of claims 8, 9, and 11-20 be withdrawn.

Election of Species Requirement

As independent claim 8 is allowable and remains generic, it is respectfully requested that claim 10 also be considered and allowed. M.P.E.P. § 806.04(d).

Entry of Amendments

It is respectfully requested that the proposed amendments be entered. The proposed amendments do not introduce new matter into the application, nor would they require an additional search. Moreover, entry of the proposed amendments will reduce the number of issues that remain for purposes of appeal. In the event that a decision is made not to enter the proposed claim amendments, entry thereof upon the filing of a Notice of Appeal in the above-referenced application is respectfully requested.

CONCLUSION

It is respectfully submitted that each of claims 1-20 is allowable. An early notice of the allowability of each of these claims is respectfully solicited, as is an indication that the above-referenced application has been passed for issuance. If any issues preventing allowance of the above-referenced application remain which might be resolved by way of a telephone conference, the Office is kindly invited to contact the undersigned attorney.

Respectfully submitted,


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